

# **Annual Report**

## **Dispensing of Prescription Medications To Persons Eligible Under KRS 205.560**

**Submitted to**

**The Governor  
And the  
Legislative Research Commission**

**Prepared For**

**The Department for Medicaid Services**

**By**

**The University of Kentucky College of Pharmacy Special Unit**

**December 1, 2001**

# CHAPTER 1

## EXECUTIVE SUMMARY

The Pharmacy Annual Report for the Kentucky Medicaid Program is prepared in accordance with the requirements in KRS 205.561. As specified, the report includes information on the most utilized and abused drugs in the Medicaid program, a factors causing high drug costs and drug usage rates among Medicaid recipients, objectives and timelines for drug cost containment in the Medicaid Drug Program, comparative data from other states, and the cost effectiveness of the drug formulary and prior authorization process. Information in the report is based upon medication usage in Medicaid fee-for-service. As required by the law, advice on the content of the report was obtained from the Drug Management Review Advisory Board at it's November 14, 2001 meeting.

### Summary of Findings:

#### 1. Factors Causing High drug Costs and Drug Usage Rates Among Medicaid recipients with Comparative Data from Other States.

- Medication expense for Medicaid fee-for-service recipients increased by 32.6% during FY 2001.
- The increase in medication expense is primarily attributed to the addition of 119,022 new members, which includes Kentucky Health Select recipients and new recipients, and changes in utilization (64% of the increased expense). Price inflation, new drugs and changes in the drug mix accounted for 36% of the increased expense.
- Prescription utilization for CY2000 among all Kentuckians ranked at or near the top based on national studies.
- Kentucky ranks above the national average in usage of the most high-cost therapeutic classes of drugs.
- For the second year Kentucky per resident led the nation in the use of proton pump inhibitors, one of the medications used for acid/peptic disorders.

#### 2. Cost effectiveness of the drug formulary and prior authorization process.

- Twelve-month reviews were conducted on 39 classes which included 108 SB351 drugs. The criteria for placement on prior authorization were not met in any of the classes so there were no changes in drug status.
- A total of 33 drugs requiring prior authorization in the 39 classes reviewed met the requirements of KRS 205.5632 and KAR 1:019 as being comparable drugs. The status of these drugs was changed to non-prior authorization.

- Excluding long term care, total expense for regular outpatient prior authorization drugs in FY 2001 was \$41.9 million which, represents an increase of 21% over FY 2000 compared to an over all increase for all expenses of 32.6% compared to FY 2000.

### **3. Objectives and Timelines for Cost Containment in the Medicaid Program.**

- Several initiatives are planned by the Department to address the increasing cost of pharmaceuticals which are discussed in the body of the report.
- Continuing for a second year was the educational intervention to reduce the prescriptive use of antibiotics for the treatment of viral infections, and to reserve "second-line" antibiotics for cases where first-line antibiotics are not appropriate.

### **4. Data on Most Utilized and Abused Drugs in Medicaid.**

- The most utilized drugs based on expense continue to be the proton pump inhibitors for acid/peptic disorders, atypical antipsychotics, and antidepressant drugs.
- The most abused drugs include several controlled substances: hydrocodone, oxycodone, diazepam, carisoprodol, and alprazolam.

## **CONCLUSION**

Medicaid fee-for-service medication expense increased by 32.6% during FY2001. Approximately 64% of this increase was due to the addition of 119,022 average monthly eligible recipients, and 36% was due to price inflation, new drugs and changes in drug mix. Considering prescriptions per resident, Kentucky continues to rank at or near the top in national studies, and Kentucky ranked well above the average of other states in the utilization of high cost therapeutic categories. The most utilized drugs in Kentucky Medicaid continue to be the proton pump inhibitors for acid/peptic disorders, atypical antipsychotic drugs and antidepressant drugs. Under KRS 205.5632 and KAR 1:019 the review of 39 drug classes valued at \$167 million was conducted to determine whether new drugs should remain on non-prior authorization status, and whether the category reviewed contained other comparable drugs which should be moved to non-prior authorization status. The criteria for placement on prior authorization were not met in any of the classes, and 33 comparable drugs were identified and moved to non-prior authorization status. At year's end, 60 classes valued at \$127 million remained to be reviewed. The Department has proposed significant changes in the pharmacy program to improve cost control and many of those are listed in this report.

## CHAPTER 2

### Factors Causing High Drug Cost and Drug Usage Rates Among Medicaid Recipients

Kentucky Medicaid has previously reported total annual pharmacy payments of \$568,021,355, which excluded expense for KCHIP recipients. The Department's reports used for this analysis of prescription expenditures do not exclude KCHIP prescription statistics. Therefore, this report will refer to the expense for all prescription utilization in fee-for-service Medicaid including KCHIP since prescription statistics also include KCHIP.

Total annual prescription expenditures reached \$574,743,870 during FY 2001, a 32.6% increase over FY 2000. **ATTACHMENT 1** shows the annual expenditures for the past five years. This graphic depicts a rapid rate of increasing expense for medications. The increase for FY2001 is the largest in recent years. The primary factors contributing to this increase were the return of Region 5 Managed Care recipients (65,457) to fee-for-service, the addition of 22,298 new KCHIP recipients, and a growth in new recipients of 31,267. The combined total provided an average monthly increase of 119,022 new members, which was the primary driver for the increased expense. Utilization expressed in terms of average number of prescriptions per member per month (PMPM) actually decreased from 3.32 to 2.16, a decrease of 7.28%. The type of member added to the rolls may have had an effect on utilization. For example, KCHIP members utilize fewer medications than the aged, blind and disabled. In this analysis the effect of utilization and the addition of new members was combined in determining the contribution of both to increased expenditures. **ATTACHMENT 2** shows that for the total increase in FY2001 expenditures (\$141,384,360), approximately 64% was due to the additional 119,022 average members per month and changes in prescription utilization. The other 36% was due to new drugs, changes in drug product mix and price inflation. (See **ATTACHMENT 3** for calculations.)

The Kentucky Medicaid rate of increase for these factors was compared to the rate reported by Express Scripts, a pharmacy benefits manager. Express Scripts found the annual costs per member based on average wholesale prices increased 16.2% in 2000.<sup>1</sup> They report an 11.4% combined increase for price inflation (5.4%), new drugs (1.8%), and product mix (4.2%). Kentucky Medicaid rate of increase for these factors was similar since 36% of Kentucky's total annual growth rate (32.6%) was thought to be due to the same factors. ( $32.6\% \times 0.36 = 11.7\%$ )

The Centers for Medicare and Medicaid Services (CMMS) has projected that Medicaid medication expense will increase 70% faster than overall Medicaid expenditures between 2001 and 2006.<sup>2</sup> The reasons for the growth in medications expenditures in Kentucky are the same as those being reported nationally. A report by the National

<sup>1</sup> Drug Trend Report, Express Scripts, Inc. June, 2001.

<sup>2</sup> Office of the Actuary, CMMS, National Health Care Expenditures Projections: 2001-2010, March, 2001.

Institute for Health Care Management Research and Education Foundation reviewed the \$20.8 billion increase in prescription expenditures between 1999 and 2000. The study noted that half of the increase occurred in eight categories (cholesterol, arthritis, chronic pain, depression, ulcers and other gastrointestinal conditions, hypertension, diabetes and seizures). A total of 50 drugs were responsible for almost half of the annual sales, and the prescription cost for these drugs was more than two times that of other drugs. About 42% of the \$20.8 billion increased spending was due to an increase in prescription volume, 36% was due to a shift in drug mix, and 22% was due to price inflation.<sup>3</sup>

Research continues to lead to new and/or improved therapies that reduce morbidity and mortality. These advances allow the management of more conditions on an ambulatory basis than has been true in past years. Direct to consumer advertising has led to more physician visits for advertised conditions and has resulted in higher volumes for the advertised drugs. At the same time sales of generic drugs account for a very small percentage of all dollars for prescriptions. The introduction of newer more expensive drugs to replace older less effective therapies is an important factor. For example, the newer class of proton pump inhibitors (PPI) has largely replaced the older class of H2 receptor antagonists (H2RA) drugs for the treatment of many acid related gastrointestinal diseases. In CY2000 the average Kentucky Medicaid prescription for an H2RA was \$65.64 compared to an average of \$115.28 for a PPI.

While prescription claims, PMPM, decreased 7.28% from FY2000, Medicaid paid an average of 25.9 claims (prescriptions) per recipient at an average cost of \$1126 per member per year during FY2001. Kentucky citizens continue to use medications at a record rate. According to a survey of 8.8 million persons age 18-64 whose pharmacy benefits are managed by Express Scripts, those in Kentucky health plans led the nation with 11.88 prescriptions per year.<sup>4</sup> Other high use states were West Virginia (11.25), Ohio (11.03), and Louisiana (10.97). The lowest states were Colorado and New York with 7.7 and 7.65 respectively. Similar data from the Novartis Pharmacy Benefit Report indicated that Kentucky ranked third in prescription utilization. The rank order for prescriptions per resident for CY 2000 was Tennessee (14.5), Rhode Island (13.9), Kentucky (13.4), West Virginia, (13.4), and Alabama (13.1).<sup>5</sup>

Kentucky's utilization of key therapeutic classes of drugs continues to rank higher than the national average according to data obtained from the Novartis Pharmacy Benefit Report website. These data are shown in the tables and charts in **ATTACHMENT 4** and show Kentucky's utilization compared to national averages expressed as an index. Each state's expense (dollar index) or prescription use (Rx index) per 1000 residents divided by the national average expense or national average number of prescriptions per 1000 residents for a given therapeutic class gives yields the indexes shown. The indexes show that Kentucky continues to be above average in all therapeutic classes

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<sup>3</sup> Prescription Drug Expenditures in 2000: The Upward Trend Continues, A Report by the National Institute for Health Care Management Research and Education Foundation, Washington, D.C., May, 2001. ([www.nihcm.org](http://www.nihcm.org))

<sup>4</sup> Express Scripts, Inc., June, 2001

<sup>5</sup> Novartis Pharmacy Benefit Report, Facts & Figures, 2001 Edition, Novartis Pharmaceuticals Corporation, East Hanover, New Jersey.

studied with the exception of contraceptives which was near average (index of 0.99). For the second year Kentucky leads the nation in both dollars (index of 1.44) spent and prescriptions (index of 1.55) dispensed for proton pump inhibitors. Kentucky also had the top index for dollars (index of 1.38) spent on NSAID drugs, and both indexes were close to the leading states for Cox-2 inhibitors and antihistamines.

## CHAPTER 3

### Cost Effectiveness of the Drug Formulary and Prior Authorization Process

In accordance with Sections KRS 205.5632 and KAR 1:019 new drugs marketed after July 1998 were reviewed to determine whether their use resulted in extreme cost or whether they presented an extreme safety risk. (Hereafter referred to as SB351 drugs.) Concurrent reviews were also conducted on other drugs in the same class that required prior authorization. These were examined under KAR 1:019 to determine whether they should be placed on the same status as the comparable SB351 drug. **ATTACHMENT 5** shows that 39 classes having 108 SB351 drugs received a 12-month review during FY2001. The total expense associated with classes receiving 12-month reviews was almost \$167 million during CY2000. The top ten classes reviewed ranked by total expense during CY2000 are shown in **ATTACHMENT 6**. The first three classes were proton pump inhibitors, anticonvulsants, cholesterol lowering drugs.

The reviews identified 33 comparable drugs, which were switched to non-prior authorization in accordance with the regulation. All of these drugs were switched to non-prior authorization in accordance with the regulation. None of these reviews identified extreme cost or safety issues *as defined* in KAR 1:019. The bar established by the criteria in the regulation was set sufficiently high that none of the drugs qualified for consideration as a financial burden to the Department. No changes were made based on cost or safety issues, but a few changes were made based upon coverage issues such as whether the drug was an excludable under Federal law. The classes reviewed and the changes associated with each class are shown in **ATTACHMENT 7**.

At the end of fiscal year 2001, sixty (60) classes (valued at almost \$132 million for CY2000) containing 76 SB351 drugs remained to be reviewed. Twenty of these classes were examined to identify drugs comparable to the SB351 drugs and to estimate the cost impact of switching these drugs to non-prior authorization in accordance with KRS 205.5632 and KAR 1:019. 20 were preliminarily examined to estimate the impact for potential HB608 changes. The 20 classes accounted for 69% of the \$132 million and it was estimated that only \$93,671 (about 0.1% of the expense for the 20 classes) would be impacted by changes in status (conversion to non-prior authorization) of the comparable drugs under HB608. Again, that was due to the criteria set in regulation which made it difficult for prior authorization to be utilized. The top ten classes remaining to be reviewed were ranked by total expense for CY2000. (See **ATTACHMENT 8**) The first three classes were atypical anti-psychotics, calcium channel blockers and beta-adrenergic agents.

Prior authorization was \$57,681,219 or 10% of the total annual expenditures for medications. Approximately \$15.7 million was from LTC and personal care, and the remaining \$41.9 million was from regular outpatient medication use. (See **ATTACHMENT 1**) This total has grown very slowly in the past three years as shown in **ATTACHMENT 1** due to KRS 205.5632 and actions taken to place most drugs on non-prior authorization status. The 41.9 million in prior authorization expense for regular outpatient recipients was an 21% increase over FY 2000. Examples of the more

common categories of medications requiring prior authorization include antihistamines, controlled substances, immunosuppressive drugs, growth hormone, single-source (branded) NSAID drugs, selected injectable products, and weight gain/loss products.

## CHAPTER 4

### Objectives and Timelines for Cost Containment in the Medicaid Program

The rapidly growing expense for pharmacy has resulted in plans to implement new procedures aimed at cost control. The following items are included in these plans. The Department has already initiated implementation for many of these initiatives.

- Revision of the pharmacy regulation and its approval as emergency regulation, KAR 1:019E.
- Creation of a Pharmacy and Therapeutics Advisory Committee consisting of physicians and pharmacists to advise the Governor and Medicaid on the development of a Medicaid Formulary.
- Development of a negative formulary, i.e., a list of drugs requiring prior authorization or drugs having other restrictions.
- The implementation of a preferred drug list which are drugs having a more favorable cost profile which the provider will be encouraged to use if clinically appropriate. This list may be linked to clinically appropriate therapeutic protocols or step therapy algorithms requiring prior authorization.
- Revision of prior authorization procedures.
- Elimination of the exemption from prior authorization requirements for residents of personal care homes.
- Requirement that generic products be used if available unless approval for the brand is obtained through prior authorization.
- Establishment of quantity limitations.
- Prior authorization may be required for compounded prescriptions, early refills, duplicate therapeutic agents, and replacement prescriptions.
- The identification of specific drugs or drug classes for which residents of nursing facilities will no longer receive automatic prior authorization approval.

All states are facing rising Medicaid medication costs, and most are taking steps to reduce cost and improve clinically appropriate use. Initiatives encouraging the use of generics and limit the use of branded products are being reported with increasing frequency. Recent examples include Washington, Massachusetts, and Florida.<sup>6,7</sup> In 1999, 97% of HMO were utilizing formularies, and state Medicaid programs are using this strategy as well.<sup>8</sup>

Antibiotic utilization is a national concern. Over utilization and growing antibiotic resistance patterns have led to the development of initiatives by the Center for Disease Control to improve antibiotic prescribing. For the second year Medicaid partnered with the pharmaceutical industry on programs to discourage prescribing of antibiotics for viral infections and to reserve second line antibiotics for use when treatment is not appropriate for the first-line agents.

<sup>6</sup> R. Thomas, Seattle Times Olympia Bureau, Seattle Times, Monday, October 1, 2001.

<sup>7</sup> The Boston Globe, Monday, October 5, 2001

<sup>8</sup> Health Maintenance Organizations, [www.managedcaredigewst.com](http://www.managedcaredigewst.com)

## CHAPTER 5

### Most Utilized and Abused Drugs in Kentucky Drugs in Kentucky Medicaid

The most utilized medications for Kentucky Medicaid are shown in **ATTACHMENT 9**. The table ranks the top 50 dosage forms by NDC number based upon dollars spent in FY2001. This list of 50 drugs products accounted for \$178,325,010 or 31% of Medicaid pharmacy expenditures. The drugs in the table were further grouped into therapeutic classes to show not only the high cost drugs but also show their associated therapeutic groupings. The top three drugs included the proton pump inhibitors, Prilosec and Prevacid, and the atypical antipsychotic drug Zyprexa. The top three therapeutic categories represented were antipsychotics (\$31.8 million), depression/anxiety (\$25.7 million), and cox-2 NSAID (\$16.2 million) category. It should be noted that there are other drugs in each of the therapeutic classes listed that did not make the top 50 list. Thus, the total annual expense for each of the classes shown is greater than the table indicates. Likewise, there are other dosage forms for the drugs in the table which were not used in sufficient quantities to make the top 50 list.

**ATTACHMENT 10** shows just the top ten drugs requiring prior authorization during the year. These ten drugs accounted for about \$14.6 million of the total expense for prior authorization. (\$57.7 million – see **ATTACHMENT 1**). Most of the top drugs are either antihistamines or controlled substances. This also holds true even when the list is expanded to the top 25 drugs requiring prior authorization.

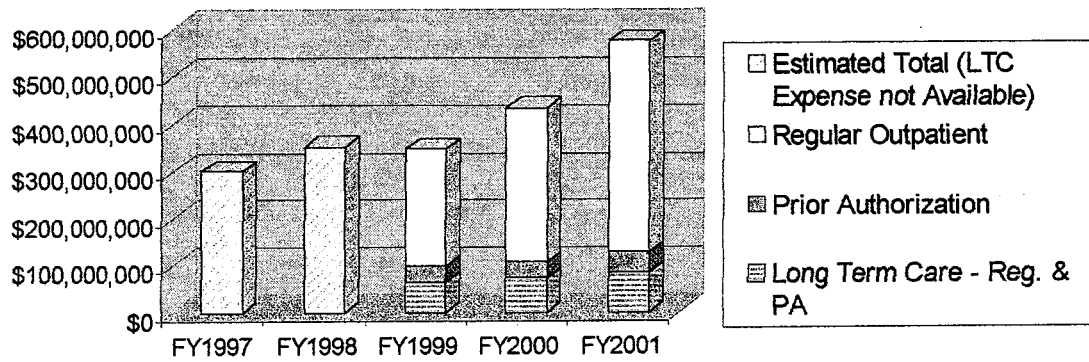
A list of the most frequently abused drugs based upon the recent experience of Drug Control of the Kentucky Department of Public Health was obtained for this report. The drugs included are the same as those reported last year. The most abused drug is hydrocodone alone or in combination with other drugs followed by oxycodone (OxyContin is a common brand), alprazolam (Xanax), diazepam (Valium is a common brand), carisoprodol (Soma is a common brand). This information is the opinion of the drug control branch based upon the frequency of inquiries by law enforcement officials. All drugs listed are controlled substances and are covered by Medicaid, but require prior authorization.

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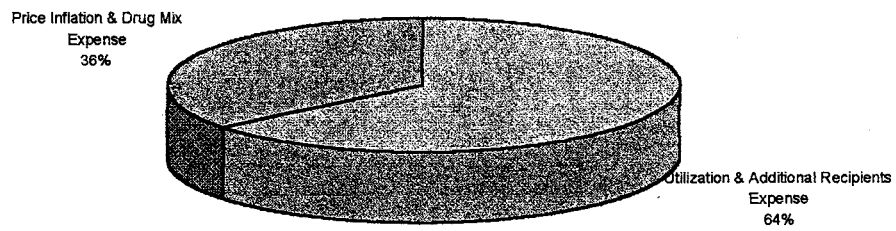
## ATTACHMENT 1

**Annual Kentucky Medicaid Medication Expense, FY1997-  
FY2001. Source: MMIS Reports or the Department for Medicaid  
Services**



## ATTACHMENT 2

Components of the \$141,384,360 Increase in Total Payments for Medications During FY2001.



## ATTACHMENT 3

**Table 1. Quarterly Payment Summary Report, FY 2001 Compared to Total FY2000.**  
Source: SAR Reports S2507R01, Unisys Inc.

	FY2000 Total	FY2001 1st QTR	FY2001 2nd QTR	FY2001 3rd QTR	FY2001 4th QTR	FY2001 Total
Regular Outpatient Drug List		\$100,190,546	\$109,393,956	\$119,188,354	\$118,333,556	\$447,106,412
Outpatient Prior Authorization		\$9,640,802	\$10,182,296	\$11,438,837	\$10,684,420	\$41,946,355
Long Term Care Facility - REG		\$16,406,667	\$17,016,978	\$18,293,535	\$18,239,059	\$69,956,239
Long Term Care Facility - PA		\$3,922,742	\$4,015,920	\$3,972,161	\$3,549,922	
Personal Care PA		\$72,406	\$69,058	\$69,593	\$63,062	\$15,734,864
Summary Report TOTALS	\$433,359,510	\$130,233,163	\$140,678,208	\$152,962,480	\$150,870,019	\$574,743,870
Claims/prescriptions	10,936,690	3,085,822	3,276,501	3,533,170	3,327,372	13,222,865
	\$39.62					\$43.47
Average FFS Members*	391,490	489,451	511,067	517,411	515,121	510,512
Total Expense PMPM	\$92.25	\$88.69	\$91.75	\$98.54	\$97.63	\$93.82
Prescriptions PMPM	2.3280	2.1016	2.1370	2.2762	2.1531	2.1584

\*Source: Kentucky Department for Medicaid Services, Ad hoc Report 01-692, Eligible Medicaid Members by Month, FY2001 and from monthly average data provided by the Department in a report entitled Eligible Comparison, State Fiscal Year, 2000.

### Calculation of Increases/Decreases Compared to FY2000

#### **Eligible Medicaid Members Per Month**

In preparing this report the goal was to assure comparability between the totals for drug expense reported on the various Unisys MMIS reports and the average number of unduplicated eligible Medicaid Members per month. This would permit analysis concerning variables such as utilization per member, cost per member, or claims per member during FY2001 compared to FY2000. Recipients whose prescriptions are not contained the MMIS reports, i.e., managed care (Region 3 & 5 during FY2000, and Region 3 for FY2001) were removed from the total. Also, recipients such as KCHIP, which are removed from Medicaid expense totals, are not removed for this report.

The average eligible Medicaid members by month for FY2000 were derived from data provided by the Department.

555,806 Total eligible Medicaid members per month (with KCHIP)  
 -98,859 Region 3 average managed care members per month  
 -65,457 Region 5 average managed care members per month  
 391,490 Average monthly members in fee-for-service (with KCHIP)

The average eligible Medicaid members by month for FY2001 were derived from the Medicaid report, Ad hoc 01-692.

623,973 Total eligible Medicaid members per month (with KCHIP)  
-113,461 Region 3 average managed care members per month  
510,512 Average monthly members in fee-for-service (with KCHIP)

The 119,022 difference in the average members per month for the two fiscal years is significant. The probable breakdown of the increase may be as follows.

65,457 Region 5 average monthly members returned to FFS July 2000  
22,298 FY2001 KCHIP increase  $[(638,357 - 370,781) / 12]$   
31,267 Other new member growth  
119,022 FY2001 Increase in average monthly members

***Increased Drug Expense & Percentage Change***

FY2001 Expense – FY2000 Expense = Total Increased Expense for FY2001

$\$574,743,870 - \$433,359,510 = \$141,384,360$

$(\$141,384,360 / \$433,359,510) * 100 = 32.63\%$

***Change in Eligible Medicaid Members by Month***

FY2001 members – FY2000 members = Additional Members, FY2001  
510,512 – 391,490 = 119,022 Additional Members, FY2001

$(119,022 / 391,490) * 100 = 30.4\%$  Increase

***Drug Expense Per Member Per Month (PMPM)***

FY2001 Expense / FY2001 Eligible Medicaid Member Per Month

$(\$574,743,870 / 510,512) / 12 = \$93.818$  PMPM

***Change in Annual Claims***

FY2001 Claims – FY2000 Claims = Increase/decrease Claims

$13,222,865 - 10,936,690 = 2,286,175$  Additional Claims

***Change in Average Claims Per Member Per Month (PMPM)***

FY2001 Claims / FY2001 Members = Claims PMPM

$(13,222,865 / 510,512) / 12 = 2.1584$  Claims PMPM

Avg Claims PMPM FY2001 – Avg Claims PMPM FY2000 = Increased/Decreased Claims

$2.1584 - 2.328 = -0.1696$  Decreased Claims PMPM

$(-0.1696 / 2.328) * 100 = -7.28\%$  Decrease

***Proportion of Claims Attributed to Additional FY2001 Members***

FY2001 Additional Members \* 2.1584 FY2001 Claims PMPM = Claims for Additional Members

$$(119,022 * 2.1584) * 12 = 3,082,765 \text{ Claims}$$

***Added Expense for Additional Members***

(Total Additional Members \* Avg Cost PMPM for FY2000 ) \* 12 = Total Expense for Additional Members

The average cost PMPM for FY2000 was used to exclude inflation from the result.

$$(119,022 \text{ members} * \$92.25) * 12 = \$131,751,298$$

***Cost Per Claim FY2001***

Total FY2001 Expense / Total FY2001 Claims

$$\$574,743,870 / 13,222,865 = \$43.47$$

***Effect of Decreased Utilization During FY2001***

[(FY2001 Avg. Members Per Month) \* (FY2000 Claims PMPM)] \* 12 = The Total Annual Claims Expected for FY2001

$$510512 * 2.328 * 12 = 14,261,663 \text{ Expected Claims}$$

FY2001 Actual Claims – FY2001 Expected Claims = Increased/Decreased Claims Expected

$$13,222,865 \text{ Claims} - 14,261,663 \text{ Expected Claims} = -1,038,798 \text{ Difference from Expected}$$

Cost Per Claim before inflation (FY2000 Cost/Claim) \* Difference in Expected Claims = Expense Avoided Due to a Decrease in Claims

$$\$39.624 * (-1,038,798) = -\$41,163,041$$

***Combining the Effect of Utilization and Increased Average Members Per Month***

Change in Expense due to new Members + Change in Expense Due to Utilization = Total Effect of Utilization and New Members

$$\$131,751,298 + (-\$41,163,041) = \$90,588,257 \text{ (the net effect of utilization and new members)}$$

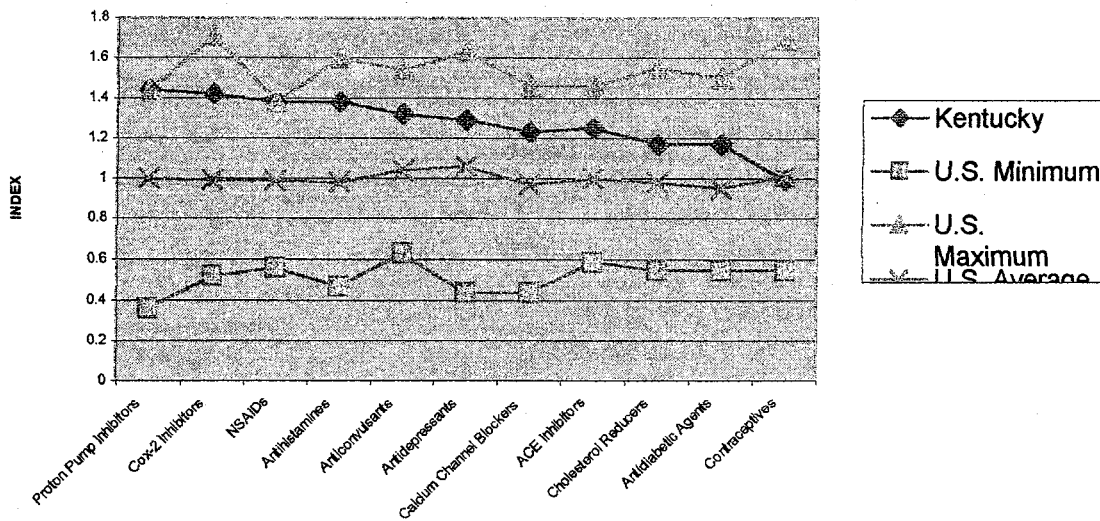
***Determining the Effect of New Drugs, Product Mix, and Price Inflation***

Total FY2001 Increased Expense – Effect of Utilization and New Members = Expense for New Drugs, Changes in Product Mix, and Price Inflation

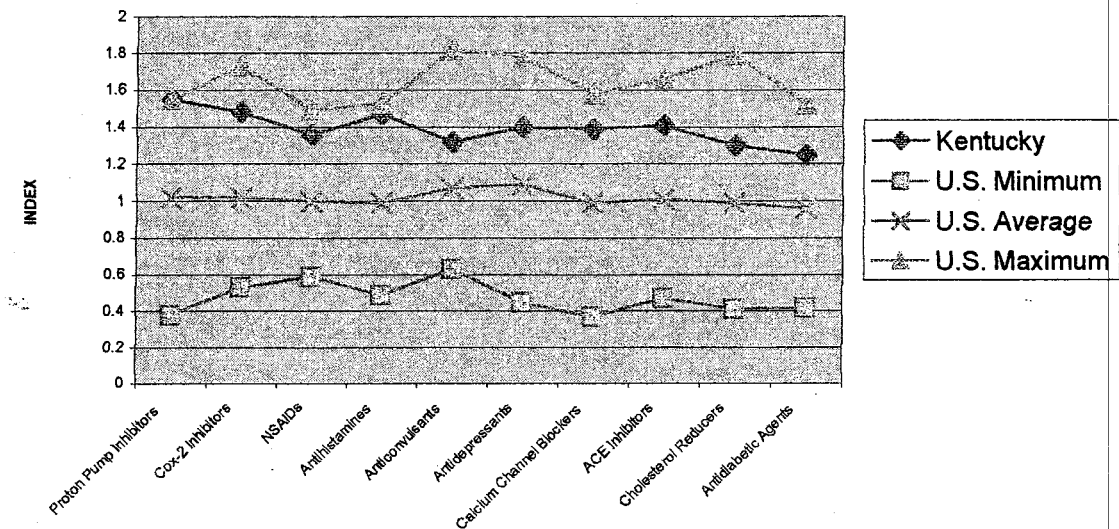
$$\$141,384,360 - \$90,588,257 = \$50,796,103 \text{ (the FY2001 impact of new drugs, mix and inflation)}$$

## ATTACHMENT 4

National-State Retail Pharmacy Dollar Utilization Index for Selected Drug Classes, CY2000



National-State Retail Pharmacy Prescription Utilization Index for Selected Drug Classes, CY2000



## ATTACHMENT 4 (Cont'd.)

**Table 2. National-State Retail Pharmacy Dollar Utilization Index Selected Drug Classes During 2000.**

Source: Pharmacy Benefit Report, Facts & Figures. Data from the Novartis Pharmaceutical Corporation, Virtual Information Network, November 8, 2001. (<http://www.vin.pharma.us.novartis.com/Scripts/Home.asp>)

Drug Class (\$)	Kentucky	U.S. Min.	U.S. Max.	U.S. Avg.
Proton Pump Inhibitors	1.44	0.36	1.44	1.00
Cox-2 Inhibitors	1.42	0.52	1.71	0.99
NSAIDs	1.38	0.56	1.38	0.99
Antihistamines	1.38	0.47	1.60	0.98
Anticonvulsants	1.32	0.63	1.54	1.04
Antidepressants	1.29	0.44	1.63	1.06
Calcium Channel Blockers	1.23	0.44	1.46	0.97
ACE Inhibitors	1.25	0.59	1.46	1.00
Cholesterol Reducers	1.17	0.55	1.55	0.98
Antidiabetic Agents	1.17	0.55	1.50	0.95
Contraceptives	0.99	0.55	1.69	1.01

**Table 3. National-State Retail Pharmacy Prescription Utilization Index Selected Drug Classes During 2000.**

Source: Pharmacy Benefit Report, Facts & Figures. Data from the Novartis Pharmaceutical Corporation, Virtual Information Network, November 8, 2001. (<http://www.vin.pharma.us.novartis.com/Scripts/Home.asp>)

Drug Class (Rx)	Kentucky	U.S. Min.	U.S. Max.	U.S. Avg.
Proton Pump Inhibitors	1.55	0.38	1.55	1.02
Cox-2 Inhibitors	1.48	0.53	1.73	1.02
NSAIDs	1.36	0.59	1.49	1.00
Antihistamines	1.47	0.49	1.53	0.99
Anticonvulsants	1.32	0.63	1.82	1.07
Antidepressants	1.40	0.45	1.78	1.09
Calcium Channel Blockers	1.39	0.37	1.58	0.99
ACE Inhibitors	1.41	0.47	1.66	1.01
Cholesterol Reducers	1.30	0.41	1.79	0.99
Antidiabetic Agents	1.25	0.42	1.52	0.96
Contraceptives	*	*	*	*

\* Accurate data not available.

## ATTACHMENT 5

### Summary of Reviews Accomplished Under KRS 205.5632 During FY2001

	Classes	Drugs
Reviewed in FY2001	39 Classes	108 (SB351)
CY2000 Expense for Reviewed Classes	\$165,973,092	\$28,664,875
HB608 Changes	15 Classes	33 (comparable Drugs)
Reviews Remaining June 30, 2001	60	76 (SB351)
Estimated CY2000 Expense for Remaining Reviews*	\$131,806,293	\$12,252,030

\* Estimate based on 44 of the 60 classes on which data were available.

## ATTACHMENT 6

**Top Ten Classes Reviewed During FY2001, and the SB351 Drug Value in Each Class.**

Review	Class	SB351 Drugs
Proton Pump Inhibitors	\$37,863,835	\$1,816,476
Anticonvulsants	\$23,236,297	\$1,223,173
Anti-hypercholesterolemia Drugs	\$15,226,638	\$210,964
Antihistamines	\$11,809,848	\$1,161,117
ACE Inhibitors	\$9,785,037	\$54,523
Penicillins	\$7,370,770	\$373,737
Metformin	\$4,759,625	\$1,183,205
Antihemophilic Factor	\$3,784,805	\$80,233
Estrogens	\$3,541,210	\$57,377
Biphosphonate Agents	\$3,386,132	\$43,772

## ATTACHMENT 7

Summary of Recommendations Resulting from Completed and Pending\* Drug Reviews  
under SB351 and HB608 as of August 1, 2001

Class for SB351 Drug	Date Final	HIC Class	Number of unique SB351 drugs	12-Month Review Recommend.	HB608 Review Recommend.
Prenatal Vitamins	April 27, 2001	C6F	19	No change	No change
Biphosphonates	May 14, 2001	P4L	1		2 drugs & 3 dosage forms to NPADF
Penicillins	May 4, 2001	W1A	3	No change	1 drug & 2 dosage forms to NPADF
Antihistamines	April 23, 2001	Z2A	2	No change	2 drugs & 4 dosage forms to NPADF Retain 3 combination products & 6 dosage forms on PADF
Estrogens	April 17, 2001	G1A	8	No change	1 drug to NPADF
Arava	May 4, 2001	S2I	1	No change	No change
Remicade	May 7, 2001	D6A	1	No change	No change
Antiretroviral	Mar. 26, 2001	W5F	6	No change	No change
Angiotensin II RA	April 30, 2001	A4F	6	No change	No change
Roferon A	May 8, 2001	Z2G	1	No change	No change
Acid/Peptic Drugs	May 14, 2001	D4K	4	No change	No change
Periostat	May 16, 2001	D1A	2	No change	No change
Neuramenidase Inhibitors	Feb. 8, 2001	W5A	2	No change	No change
Synercid	Feb. 15, 2001	W1M	1	No change	No change
Gonadotropin	April	S2I	1	No change	No change

Releasing Hormone	26, 2001				
Biological, Antineoplastic, Herceptin	April 15, 2001	V1K	1	No change	No change
Electrolyte Depleters	June 1, 2001	C1A	3	No change	1 drug and 2 dosage forms to NPADF
Antitubercular Antibiotic	June 4, 2001	W1G	1	No change	No change
Enbrel (DMARD)	June 5, 2001	S2J	1	No change	No change
Anticonvulsant	June 5, 2001	H4B	7	No change	No change
Metformin	May 23, 2001	C4L	3	No change	No change
Antimalarial	June 5, 2001	W4A	1	No change	5 drugs & 7 dosage forms to NPADF
Cephalosporins (3 <sup>rd</sup> & 4 <sup>th</sup> - Generation)	June 25, 2001	W1B	2	No change	No change
Impotence Drugs	June 25, 2001	F2A	1	No change	1 drug & 2 dosage forms to NPADF
Topical Antifungal Drugs	June 25, 2001	Q5F	2	1 drug to PADF	10 drugs and 15 dosage forms to NPADF
Hypercholesterolemia Drugs	June 25, 2001	M4E	4	No change	No change
Laxative & Cathartic Drugs	June 28, 2001	D6S	2	No change	2 drugs & 3 dosage forms to NPADF
ACE Inhibitors	June 26, 2001	A4D	5	No change	No change
Alpha-glucosidase (Glyset)	June 26, 2001	C4M	1	No change	No change

## ATTACHMENT 8

**Top Ten Classes Remaining to be Reviewed as of June 30, 2001, and the SB351 Drug Value in Each Class**

Review	Class	SB351 Drugs
Anti-psychotics, Atypical	\$38,454,248	\$3,436,832
Calcium Channel Blockers	\$12,281,656	\$82,935
Beta-adrenergic agents	\$10,762,661	\$0
Macrolides	\$7,802,869	\$289,415
Quinolones	\$6,933,250	\$613,104
Nasal Anti-inflammatory Agents	\$5,094,668	\$423,288
Protein Replacement	\$5,069,039	\$4,607,010
Insulins	\$5,037,719	\$114,956
Leukotriene Receptor antagonists	\$4,845,087	\$48,865
Coronary Vasodilators	\$4,736,751	\$16,126

# ATTACHMENT 9

Top 50 Drug Products by Payment for FY2001. Sorted by Quarter and Therapeutic Class. Source: Kentucky Medicaid MMIS Report SAR S2503 R01. \* Drug listings that appear identical have different NDC numbers. The package size portion of the NDC is shown in parenthesis.

BRAND NAME*	CLASS	RANK	1st QTR 01		2nd QTR 01		3rd QTR 01		4th QTR 01		Avg		Total
			PAYMENT	Rx Cost	PAYMENT	Rx Cost	PAYMENT	Rx Cost	PAYMENT	Rx Cost	Avg	Rx Cost	
Claritin 10MG TA	400	22	\$621,814	\$64.95	\$661,988	\$66.65	\$671,528	\$67.47	\$745,683	\$69.04	\$69.04	\$69.04	\$2,701,013
Allegra 180MG TA	400		\$0		\$0		\$512,816	\$55.00	\$698,721	\$59.70	\$59.70	\$59.70	\$1,211,537
Zyrtec 10MG TA	400	34	\$491,281	\$53.62	\$508,364	\$53.56	\$528,688	\$54.07	\$644,708	\$54.80	\$54.80	\$54.80	\$2,173,041
Flonase 50MCG AQ	5200	41	\$461,098	\$52.65	\$541,484	\$53.03	\$633,017	\$54.40	\$603,393	\$55.04	\$55.04	\$55.04	\$2,238,993
<b>Antihistamines / Nasal Steroids</b>													
Augmentin 875-125MG TA	800		\$0		\$498,560	\$93.82	\$648,844	\$95.86	\$484,375	\$95.76	\$95.76	\$95.76	\$1,631,779
Zithromax 250MG TA	800	29	\$541,970	\$40.85	\$853,001	\$40.87	\$1,135,150	\$41.40	\$650,283	\$41.47	\$41.47	\$41.47	\$3,180,404
Levaquin 500MG TA	800	28	\$560,748	\$73.35	\$646,315	\$72.46	\$764,055	\$72.57	\$639,695	\$72.01	\$72.01	\$72.01	\$2,610,813
Cipro 500MG TA	800	20	\$637,252	\$74.57	\$612,025	\$74.50	\$628,641	\$75.13	\$581,808	\$77.77	\$77.77	\$77.77	\$2,459,726
Synagis 100MG HS	800		\$0		\$745,465	\$1,200.43	\$1,481,335	\$1,170.09	\$0	\$0	\$0	\$0	\$2,226,800
<b>Antibiotics</b>													
Megace 40MG/ML SC	1000	32	\$514,635	\$121.43	\$507,543	\$119.56	\$610,733	\$121.93	\$716,088	\$124.45	\$124.45	\$124.45	\$2,348,999
<b>Antineoplastic / AIDS Wasting</b>													
Lipitor 20MG TA	2400	11	\$858,225	\$90.89	\$888,647	\$90.79	\$959,533	\$92.22	\$994,148	\$92.20	\$92.20	\$92.20	\$3,700,551
Lipitor 10MG TA	2400	9	\$875,641	\$58.22	\$895,588	\$57.99	\$936,484	\$58.95	\$964,153	\$59.07	\$59.07	\$59.07	\$3,671,866
Zocor 20MG TA	2400	18	\$689,906	\$113.96	\$764,630	\$114.50	\$820,910	\$116.38	\$896,377	\$117.19	\$117.19	\$117.19	\$3,171,823
<b>Antilipemic</b>													
Norvasc 10MG TA	2400	44	\$445,771	\$66.16	\$452,823	\$65.69	\$0	\$0	\$493,223	\$64.87	\$64.87	\$64.87	\$1,391,816
<b>Calcium Channel Blocker</b>													
Zyprexa 10MG TA	2800	2	\$2,737,865	\$345.86	\$2,867,474	\$348.04	\$2,985,745	\$356.29	\$2,885,483	\$355.05	\$355.05	\$355.05	\$11,476,567
Zyprexa 5MG TA	2800	7	\$1,037,612	\$189.17	\$1,094,235	\$191.57	\$1,161,620	\$199.42	\$1,156,657	\$196.78	\$196.78	\$196.78	\$4,450,124
Zyprexa 2.5MG TA	2800	17	\$706,061	\$152.07	\$757,837	\$151.05	\$863,694	\$160.20	\$860,199	\$161.50	\$161.50	\$161.50	\$3,187,791
Zyprexa 15MG TA	2800	45	\$425,848	\$393.94	\$688,861	\$401.90	\$659,864	\$414.75	\$560,131	\$413.99	\$413.99	\$413.99	\$2,334,704
Risperdal 1MG TA	2800	23	\$599,213	\$110.86	\$655,828	\$118.74	\$668,981	\$120.89	\$671,492	\$122.51	\$122.51	\$122.51	\$2,595,513
Risperdal 2MG TA	2800	35	\$484,633	\$198.05	\$541,829	\$202.33	\$571,764	\$200.20	\$599,230	\$198.22	\$198.22	\$198.22	\$2,197,456
Risperdal 3MG TA	2800	40	\$463,500	\$226.65	\$500,414	\$231.24	\$539,673	\$229.36	\$499,473	\$236.94	\$236.94	\$236.94	\$2,003,059
Seroquel 100MG TA	2800	36	\$478,734	158.42	\$528,356	\$157.16	\$539,127	\$152.42	\$548,941	\$149.58	\$149.58	\$149.58	\$2,095,158
Seroquel 200MG TA	2800		\$0		\$463,573	\$281.12	\$522,006	\$288.72	\$544,260	\$286.45	\$286.45	\$286.45	\$1,529,838
<b>Antipsychotic</b>													
													\$31,870,209

Celebrex	200MG	CA	2800	4	\$2,177,494	\$92.58	4	\$2,341,064	\$93.45	4	\$2,542,507	\$96.60	4	\$2,654,496	\$96.92	\$9,715,561
Vioxx	25MG	TA	2800	6	\$1,452,168	\$75.18	6	\$1,563,056	\$76.33	6	\$1,716,951	\$78.31	5	\$1,800,171	\$78.36	\$6,532,346
Cox-2 NSAID																
Prozac	20MG	CA	2800	5	\$1,703,549	\$112.36	5	\$1,731,193	\$113.83	5	\$1,794,891	\$116.70	6	\$1,774,027	\$118.58	\$7,003,660
Paxil	20MG	TA	2800	8	\$1,005,087	\$75.46	8	\$1,054,143	\$77.99	10	\$1,109,864	\$79.81	8	\$1,134,676	\$81.64	\$4,303,770
Zoloft	50MG	TA	2800	15	\$778,610	\$75.21	15	\$806,358	\$75.52	18	\$838,159	\$75.43	15	\$872,217	\$76.78	\$3,295,344
Zoloft	100MG	TA	2800	13	\$833,854	\$82.10	14	\$844,615	\$82.09	14	\$888,706	\$82.69	12	\$935,657	\$84.31	\$3,502,832
Wellbutrin SR	150MG	TS	2800	33	\$513,855	\$76.38	33	\$556,345	\$78.14	32	\$645,961	\$79.75	23	\$731,115	\$81.66	\$2,447,276
Buspar	15MG	TA	2800	14	\$790,179	\$124.22	16	\$799,753	\$124.73	17	\$849,114	\$128.48		\$0		\$2,439,046
Celexa	20MG	TA	2800	25	\$586,243	\$65.60	27	\$653,658	\$66.42	25	\$731,024	\$67.92	19	\$781,849	\$68.15	\$2,752,774
Depression / anxiety																
Depakote	250MG	TA	2800	30	\$526,861	\$73.00	43	\$497,763	\$72.94		\$0		50	\$473,629	\$75.30	\$1,498,253
Depakote	500MG	TA	2800	10	\$862,063	\$122.05	12	\$870,986	\$121.85	15	\$878,593	\$125.50	17	\$835,643	\$125.38	\$3,447,285
Neurontin	300MG	CA	2800	12	\$838,700	\$96.57	10	\$890,915	\$96.01	12	\$944,644	\$96.13	10	\$984,738	\$95.88	\$3,658,996
Neurontin	400MG	CA	2800	43	\$452,824	\$142.76	48	\$454,662	\$137.11		\$0		46	\$499,058	\$137.98	\$1,406,543
Anticonvulsants																
Prilosec	20MG	CF (-31)	5600	1	\$4,784,693	\$130.96	1	\$5,199,093	\$130.95	1	\$5,310,295	\$129.84	1	\$5,149,871	\$129.52	\$20,443,952
Prevacid	30MG	CF (-13)	5600	3	\$2,405,133	\$119.37	3	\$2,606,311	\$120.52	3	\$2,877,397	\$122.08	2	\$2,993,996	\$121.55	\$10,882,837
Prevacid	30MG	CA (-11)	5600	19	\$642,059	\$113.40	23	\$674,365	\$114.11	24	\$737,789	\$113.77	18	\$790,512	\$111.40	\$2,844,725
Prilosec	20MG	CF (-82)	5600	27	\$563,407	\$131.98	30	\$616,848	\$130.25	29	\$664,445	\$130.16	28	\$669,637	\$130.25	\$2,514,336
Axid	150MG	CA	5600	26	\$577,772	\$99.34	32	\$592,412	\$104.54	37	\$586,044	\$106.81	38	\$565,554	\$112.53	\$2,321,783
Aciphex	20MG	TE	5600	39	\$470,093	\$110.25	29	\$634,652	\$113.03	23	\$745,183	\$112.21	20	\$761,844	\$111.64	\$2,611,771
Acid / Peptic Agents																
Albuterol	90MCG	AB	1200		\$0			\$0		40	\$599,312	\$21.75	43	\$501,642	\$22.67	\$1,100,954
Flovent	110MCG	AJ	6800	46	\$414,571	\$64.29	44	\$493,574	\$63.82	36	\$596,250	\$65.59	36	\$575,249	\$66.57	\$2,079,643
Serevent	21MCG	AJ	1200	24	\$593,758	\$68.80	24	\$665,027	\$69.49	21	\$789,724	\$71.62	21	\$757,470	\$72.02	\$2,805,979
Singular	10MG	TA	9200	21	\$625,121	\$73.76	21	\$711,659	\$74.40	20	\$793,608	\$74.78	14	\$875,144	\$77.56	\$3,005,533
Combivent 103-18MCG	AJ	1200	47	\$413,016	\$45.30	47	\$459,584	\$45.49	46	\$516,918	\$46.21	37	\$571,893	\$47.95	\$1,961,411	
Antiasthmatic / COPD																
Humulin	70/30	HV	6800	31	\$516,745	\$51.60	37	\$518,693	\$51.54	48	\$513,806	\$52.16	44	\$499,737	\$52.28	\$2,048,982
Glucophage	500MG	TA	6800	16	\$748,271	\$52.08	20	\$729,313	\$51.67	26	\$729,329	\$53.76	26	\$698,064	\$55.64	\$2,904,977
Diabetic Agents																
Plavix	75MG	TA	9200	38	\$471,544	\$91.31	38	\$516,349	\$90.76	39	\$570,532	\$92.74	30	\$646,647	\$94.19	\$2,205,072
Antiplatelet Agent																
Total																
\$16,247,907																
\$10,953,520																
\$4,953,959																
\$2,205,072																

## ATTACHMENT 10

**Top Ten Drugs Requiring Prior Authorization by Quarter, FY2001. Source: Kentucky Medicaid Quarterly MMIS Reports S2503-R003 for FY2001.**

Brand Name	3th QTR 00			4th QTR 00			1st QTR 01			2nd QTR 01		
	Rank	Cost/R	Payment	Rank	Cost/Rx	Payment	Rank	Cost/Rx	Payment	Rank	Cost/Rx	Payment
Claritin 10 mg Tablet	1	\$65	\$621,814	2	\$67	\$661,988	2	\$67	\$671,528	1	\$69	\$745,683
Zyrtec 10 mg Tablet	2	\$54	\$491,281	3	\$54	\$508,364	3	\$54	\$528,688	2	\$55	\$644,708
Oxycontin 20 mg SR Tablet	3	\$145	\$363,470	4	\$151	\$423,645	4	\$149	\$435,497	3	\$147	\$377,254
Oxycontin 40 mg SR Tablet	4	\$256	\$241,409	5	\$267	\$280,313	7	\$274	\$299,321	6	\$271	\$271,598
Ultram 50 mg Tablet	5	\$58	\$217,311	7	\$62	\$217,167	8	\$62	\$208,217	8	\$64	\$219,910
Adderall 10 mg Tablet	6	\$45	\$212,710	6	\$49	\$256,574	6	\$54	\$305,514	4	\$66	\$348,731
Allegra 60 mg Capsule	7	\$54	\$182,496	9	\$54	\$166,835						
Claritin 10 mg UL Tablet Dis Li	8	\$73	\$172,434	8	\$76	\$192,407	9	\$77	\$200,117	7	\$79	\$247,479
Betaseron 0.3 mg vial	9	\$914	\$138,901									
Claritin-D 24 hr. 240-10 mg Tab	10	\$71	\$137,393				10	\$73	\$168,842	9	\$75	\$186,265
Synagis 100 mg vial				1	\$1,200	\$745,465	1	\$1,170	\$1,481,335	5	\$1,021	\$339,863
Synagis 50 mg vial				10	\$589	\$161,338	5	\$569	\$363,499			
Concerta 18 mg SA Tablet										10	\$80	\$163,019
<b>Top 10 Drug Total</b>			<b>\$2,779,218</b>			<b>\$3,614,095</b>			<b>\$4,662,558</b>			<b>\$3,544,510</b>
<b>Top 50 Quarter Total</b>			<b>\$6,009,218</b>			<b>\$6,984,789</b>			<b>\$8,353,214</b>			<b>7446640.8</b>